

# Division newsletter

American Society for Engineering Education

**DIVISION:** ENGINEERING LIBRARIES

**EDITOR:** KATHY M. JACKSON

**DATE:** FALL/WINTER 1979/80

## ENGINEERING LIBRARIES DIVISION

### BUSINESS MEETING 1979

#### CONFERENCE EVENT 2556

1. Minutes of 1978 meeting. The minutes of the 1978 meeting were read and approved.
2. Budget report. Homer Bernardt reported that the newsletter cost about \$100. Members were reminded that reimbursements are available for telephone and postage expenses incurred in Society business.
3. News.

Library data: For the first time, engineering library data was included in the annual "Engineering College Research and Graduate Study" issue of Engineering Education (March). However, complaints were received that the information was too hard to obtain, and doubts were expressed about the accuracy and validity of the data. Jim Kyed requested that the library information continue to be included for one more year, during which time the objections could be investigated. Chuck Elliott, Head of the Society's Publications Committee, and Ed Segner, Chair of the Engineering Research Council, agreed to this proposal. It was the consensus of ELD members that the data was useful to librarians, ECPD, and to faculty. It was suggested that librarians might gather positive recommendations from faculty to support the ELD viewpoint. (Jim Kyed since got a letter from William Berry, ERC Publications Committee Chairman, saying that the publication was his committee's responsibility and that it would definitely no longer include library information.)
4. ELD officer elections. It was announced that the Program Chair will automatically ascend to the Chair after 2 years. The Secretary/Treasurer will become chair after two years, alternating according to the election schedule adopted in 1978. During

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the transition period, Karen Andrews will become Chair one year from now, and Kathy Jackson will become Chair the year after.

Jane Howell was elected Director for the term 1979-80. Marjorie Rhoades was elected Director for a two year term, 1979-81.

The Executive Committee will include the immediate past president, the ELD newsletter editor, the editor of the Directory, the Chair of the Recruitment and Hospitality Committee, and other committee Chairpersons.

5. ASEE/ELD Directory of Members and Resources. Mary Jo Arnold reported that revised questionnaires will be sent to people who have joined since the last update. Inserts are by number, and holders of the directory should insert new sheets or be sent new indexing pages if there are many additions.
6. Evaluation of Engineering Libraries during ECPD Accreditation Review.

George Lindauer, Chair of the Accreditation Guidelines Committee, reported on discussions with David Reyes-Guerra, Executive Director of ECPD, concerning use of a "Proposed Form for Evaluation of Engineering Libraries During the Accreditation Process". A copy of the form was mailed to all ELD members in June. Reyes-Guerra said the form would cause problems for the accreditation teams. The length, difficulty in obtaining requested data, and the time limitations of the team for performing a comprehensive survey were mentioned as reasons. The proposal that a librarian be added to the team was turned down due to cost. Reyes-Guerra also indicated that he was unaware that librarians were dissatisfied with the present accreditation process, although Lindauer noted that in 30% (of 50) letters forwarded to ECPD from librarians, there was express discontent with the review process for the library at the institution.

Lindauer asked ELD members to vote on two options: to revise the evaluation criteria, or to let it remain. He requested that members send him their comments on the proposed form immediately, so that his committee can make any necessary revisions and re-submit to ECPD. He also asked that members notify him if their institution will be reviewed this year. The membership present voted unanimously to retain the criteria used in the form, and the consensus was that librarians should establish these for evaluation purposes.

The form as it was mailed in June should be accepted as an interim. Sections I, II, and III should be filled out as a self-evaluation by the appropriate librarian prior to the visit of the accrediting team, which should receive a copy before the actual visit. A member of the team would then complete page 6 of the form. ELD members recommend that the data in Sections

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I and II on the library be completed by everyone and made available to all interested parties. This would form a central databank, useful to librarians wanting to contact libraries similar in size and mission.

7. Engineering Index/Energy Abstracts. A motion was made and passed to send a letter to Engineering Index, Inc. supporting the adoption of an indexing format for Engineering Index similar to that used in Energy Abstracts. The subject index preferred is a separate listing at the back of the volume.
8. Announcements. Homer Bernardt is "retiring" as Newsletter Editor. (Note: Kathy Jackson, Secretary/Treasurer, agreed to assume this duty). Muriel Saul was appointed Chair of the Recruitment and Hospitality Committee, replacing Karen Andrews who will serve as Program Chair.

Maurita Holland expressed thanks to Russ Powell, Kathy Jackson, and Karen Andrews for working on programs for this year's conference.

The meeting was adjourned at 3:30 p.m.

Respectfully submitted,

Karen Andrews (for Kathy Jackson)

#### CONFERENCE SUMMARY

#### MEASURING THE QUALITY AND EFFECTIVENESS OF LIBRARIANS, PART I: LIBRARY SERVICE

##### EVENT 2260

Mary Jo Arnold, Ohio State University, "Use of On-Line Catalogs: The Look of the Future"

In the late 1960's several factors, including a mysterious decline in circulation and students' dissatisfaction with branch library "Circuit riding," combined to generate a need for improved access to materials at the Ohio State University Libraries. A new system, called Library Control System (LCS), has been instituted for on-line bibliographic information retrieval. In Phase I, which

EVENT 2260 (continued)

began in November, 1970, terminals were installed in the main and some branch units for performing author, title, and call number searches for reference, book selection, and patron assistance.

Phase II involved entry of serial holdings. A major barrier was the cleanup of errors in existing records. This part of the system, which became operational in mid 1977, provides the capability of displaying the essential bits of the bibliographic description of bound volumes. Phase III, which commenced in June, 1978, added the option of searching by subject or other added entry.

Future work will improve the authority file, add more terminals, and implement user-education programs. To date, the University's Libraries have input into LCS some 70,000 full-length catalog records, and the State Library has supplied another 150,000 from its collection in the cooperative venture. Some 92 terminals are now being operated. The system usage currently averages 800,000 "transactions" (queries) during the 10-month school year, 25% of which are by the public. A management information system provides monthly statistical data on each terminal's usage. That LCS has been a success may be judged from the 19% first-year increase in circulation which was observed. It also has eliminated requirements for a collection inventory.

Ferdinand Leimkuhler, Purdue University, "Evaluating the Information Center"

An NSF study has led to the formulation of a computerized information center management system model. The study began with interviews of the heads of selected information centers about their basic management strategies and then followed up these with a more detailed survey of 118 units. Schematics were presented showing the complete flow of logic in the decision-making process in three parts: planning, implementation (performance), and evaluation/analysis. A simulation of the process using the GASP IV language was described. The computer software keeps track of all elements in time and uses this ability to generate a set of management standard reports on the center's resources and services its patrons. Among the various topics addressed was the center's use of patron fees to recover operating costs in seeking to achieve its objectives.

2738 ANNUAL BANQUET

Lee Harrisberger, Director, Center for Instructional Development,  
University of Alabama

INFORMATION RETRIEVAL AND PROBLEM SOLVING SKILLS IN ENGINEERING.

Professor Harrisberger discussed the importance of learning

2738 Annual Banquet (continued)

problem solving skills and interpersonal skills for engineering students. A study he has conducted in which students are typed psychologically has shown that introverted students are attracted to engineering and that they do not prefer learning experiences that involve reading. To provide compensation in these areas, courses are taught in which students are required to call specialists as technical consultants (telephone credit cards are provided) and to provide 1 hour of on line search time for each project they are assigned. A clinic has also been developed in which students are given an opportunity to problem solve with a company while studying. Determining the state of the art by searching the literature is an important element of preparation in the clinic. Since not all developments are recorded in the literature, however, effective verbal communication is an essential aspect of determining the true state of the art.

EVENT #3242. MEASURING QUALITY AND EFFECTIVENESS OF LIBRARIES.  
PT. 2, COLLECTIONS

"The Collections Analysis Project and its Successful Application in the Libraries of the Massachusetts Institute of Technology."

Susan Nutter, Associate Engineering Librarian, Barker Engineering Library, MIT.

CAP is the acronym for Collections Analysis Project, which is a self study evaluation process "designed to assist a research library in reviewing, describing, evaluating and analyzing its collection development program". The project was developed by the Office of Management Studies of the Association of Research Libraries.

A study team which is responsible for the overall conduct of the study was formed to begin CAP at MIT. The first part of the project was to examine the historical development of the collection as well as current policies including university and library philosophies, educational and research programs, cooperative efforts, the economic situation, and publishing trends -- all factors which have an effect on collection development. These results were given to five task forces charged with the resolution of these problems.

After much study of the specific problems, the Task Forces prepared detailed recommendations which were given to the Study Team which prepared a final report. Six broad areas defined in the paper are: 1) collection philosophy and objectives; 2) communication with the MIT community; 3) organization of the collection development process; 4) budget allocation; 5) resource sharing; and 6) preservation and conservation of materials. "CAP demonstrated

EVENT 3242. PT. 2(continued)

to us that the essential elements of a collection development program are a clearly stated collection philosophy, collection objectives, and collection development policies. They are critical tools in planning, decision-making and evaluation and monitoring."

The Study Team designed a review and evaluation report which was given to the Director of Libraries and will be continued on an annual basis through the 5 year implementation period. CAP has also been used at Case Western, San Diego State, Arizona State, and Brigham Young.

Mr. Homer Bernhardt, Engineering Librarian, University of Pittsburgh.

"Pitfalls of the Pitt Study" is the title of this paper which opens with the statement that "much concern has been generated by a study done at the University of Pittsburgh....with Professor Allen Kent as its principle investigator." This study which was supported with a grant from the National Science Foundation supported development of a cost-benefit model for the use of library materials at the University. Patterns of journal use were studied in the Engineering Library.

The presentation demonstrated the inaccuracy of information gathered by Kent and his investigators which casts doubt upon the conclusions. For instance, the Kent study assumes that when there are more people in the library, there is more journal usage. But in Bernhardt's study, there were more unique titles and bound volumes reshelved during the evening and weekend hours when the patron count was lower. The usage of unique journal titles is not constant as the investigators assume, but quite the opposite. In fact, usage would be difficult to predict as changes occur in course content, curricula, funding, and faculty.

The university library serials record tapes were used to generate the title holdings figure. But these tapes include title changes, one or more holdings line if the item is purchased in both hard copy and microfilm, gift items, exchange items and ceased titles. The currently received number of titles is actually less than one half of that reported in the survey.

The total cost of the subscription also is used. This includes many of the above items which were not sampled, as well as indexes, abstracts, and the library staff professional collections. Therefore the subscription cost/use figure is inaccurate. The complicated question remains--- how do we measure journal usage and how can we get a "cost-benefit" model to follow?

## EVENT 3551 PUBLICATIONS WORKSHOP

Woody Gannett, Director of Publications for the Institute of Electrical and Electronic Engineers (I.E.E.E.)

The IEEE consists of 30 societies and technical groups who publish a great deal of material themselves. The IEEE itself publishes about 220 titles or 100,000 pages a year.

He provided a variety of current IEEE publishing news: The IEEE is considering setting up subscriptions to certain conferences. There will be a new transaction section in 1980. Indexes to the various titles are now in the last issue of the year. They do not provide single copies of articles, but are very liberal about copyright if for non-commercial classroom and reserve usage. They are trying to use Cataloging in Publication (CIP) whenever possible. They prefer direct library billing rather than through an agency.

Allan Correnetato, Director of Publications for the Association for Computing Machinery

The ACM is organized similarly to the IEEE in that they are composed of 31 special interest groups (SIG's). The special interest groups publish journals proceedings, newsletters, monographs, and an important quarterly publication entitled, Collected Algorithms. Correnetato announced the 1977 ACM Guide to Computing Literature is now available and that 1978 is due shortly. ACM monographs are published by Academic Press--about two or three titles per year. ACM also publishes a roster. As yet, there is no standing order plan, but it may be possible eventually. The ACM will publish a combined index to 1978 publications.

Gerald Bower, Assistant Professor of Fine Arts, Louisiana State University

Tips on publishing library material were provided. It is important to learn the language of the printer so that you can communicate easily. The International Paper Company puts out a pocket size list of terms.

Joseph M. Biedenbach, Director, Continuing Education for Engineering, University of South Carolina

The production of the proceedings of the ASEE annual meeting was discussed. Biedenbach encouraged the submission of written copies of papers presented at the sessions so that those that could not attend could benefit. Tips for session chairman on getting papers published were presented.

## EVENT 4237 VOLUNTARY AND MANDATORY STANDARDS

Sophie Chumas, Technical Information Specialist, U.S. National Bureau of Standards

The Standards Information Service (SIS) of NBS was discussed. The Service was begun in 1968 and provides free current information on U.S., foreign and international standards. A staff of seven people is available to answer inquiries. Over 240,000 standards are in the collection - plus periodicals, reference titles and the VSMF files. Over 7,000 inquiries were handled during 1978.

Sidney Englander, Inspector, U.S. Consumer Product Safety Commission

The Commission was created by the Consumer Product Safety Act (CPSA) of 1972, and it is the commission's responsibility to enforce it. The Act's purpose is to protect the consumer against the dangers originating from the 10,000 consumer products currently sold in this country. There are local consumer product safety offices throughout the country. They are not responsible for food, drugs, cosmetics, pest control products, cars, alcohol, tobacco or firearms, which are controlled by other agencies. In addition to the CPSA, they enforce the Federal Hazardous Substance Act, the Flammable Fabric Act, and the Refrigerator Safety Act.

It is their responsibility to establish consumer product safety standards, all of which are published in the Federal Register and the Code of Federal Regulations. Currently, standards are being prepared on power mowers, citizen band antennas, bicycles, and children's sleepwear. The Commission also encourages the development of voluntary standards by industry.

Bert Stanley, Director of Publishing and Marketing for IEEE Standards Documents

The IEEE has about 400 standards in print at this time. Most are available from the American National Standards Institute. Hard copy standards are available through John Wiley. Fiche and film copies are available from Information Handling Services. IEEE plans to publish an index to their standards. All IEEE standards can be purchased in hard copy for a \$100 a year fee.



UNEXPLORED RESOURCES: INTEGRATING THE USE OF MODERN INFORMATION  
TOOLS INTO THE ENGINEERING CURRICULUM

EVENT 4355, A MINI-PLenary

Co-sponsors: Information Systems Committee, Engineering Libraries  
Division, Mechanics Division

Moderator: Dale I. Rummer, University of Kansas

H. G. Kaufman, New York Polytechnic Institute, "Information Needs  
of Practicing Engineers"

Dr. Kaufman presented the results of a pilot project in which he used the critical incidence approach to study the information needs of engineers. Dr. Kaufman indicated that the common practice of social scientists to group engineers with scientists is misleading. His study involved fifty practicing engineers who were involved in research and development or design. Dr. Kaufman discussed some of the preliminary data from his study. He hopes to expand this project in the future.

Maurita Holland, University of Michigan, "Searching for Bibliographic Information"

Engineers are not as literature dependent as scientists. The nature of the engineering curriculum is textbook and laboratory oriented. Both design courses and technical writing courses can be very useful in exposing engineering students to information resources available in their library.

Ms. Holland discussed some of the technological developments in information science, including on-line searching and document delivery. She presented an overview of the relevant library resources to which engineering students should be exposed, including books; journals; indexes and abstracts; conference proceedings; documents and technical reports; standards and specifications, reference sources outside the library; and business sources.

Ms. Holland spoke of the need for vigorous informational education project for students of engineering so that they will be equipped to handle the sophisticated developments in the future.

Nancy Hardy, Engineering Index, Inc., "Searching for Non-Bibliographic Information"

Non-bibliographic data bases carry information useful in and of itself. Ms. Hardy reviewed some of the characteristics of non-bibliographic data bases. Many of them are produced by government agencies. Access often is restricted by various methods. Many are married to particular retrieval services, or to particular communication networks. Non-bibliographic data bases are used heavily by the person needing the information, instead of by an intermediary, like a librarian.

Individuals in the audience who wanted additional information were referred to a 1977 technical report entitled, Review of Scientific and Technical Numeric Data Base Activities, by Barbara L. Wood of King Research, Inc. (Available as PB-278 254 from NTIS)

Stewart Kalsack, Exxon Corporation, "Patents: A Key Information Resource"

Stewart Kalsack discussed the role of patents in the information transfer process. He discussed the practices in various countries, including the fact that in most countries the first person to file gets the patent. Most patent publications are actually unevaluated applications. He emphasized that patents cover many technological advances that never get into the literature. He discussed the various techniques and tools available for both current awareness and retrospective searching.

#### NEW JOURNAL TO BE PUBLISHED

A new journal, Science and Technology Libraries is scheduled to start publication in the fall of 1980. Ellis Mount, of Columbia University, is editor, and it will be published by Haworth Press. Each issue will be organized around a theme -- the first one to be devoted to on line searching. Subsequent issues in volume one will cover, in order, networking in sci-tech libraries and information centers; the role of technical reports in sci-tech libraries and information centers; and training of sci-tech librarians and information managers. Those interested in submitting articles should contact Ellis Mount at Columbia's School of Library Service, Butler Library, New York 10027. (212) 280-4011 is his office number. Messages can be left at 280-2293. Jim Kyed is a member of the editorial board.

## KAREN ANDREWS APPOINTED TO NEW POSITION

Karen Andrews, Program Chair and Chair elect of ELD was appointed Head, Engineering and Mathematical Sciences Library at UCLA effective December 17, 1979. Karen previously held the position of Head, Engineering Library, at the University of Oklahoma where she was employed for six years, initially as science cataloger.

## FALL PLANNING MEETING HELD

At the ASEE fall planning conference, held in Alexandria, Virginia, 25-26 October, and attended by Chairman Jim Kyed and program chairman Karen Andrews, it was announced that future annual ASEE meetings will be held at the following locations:

- 1980     University of Massachusetts, Amherst  
(theme: Engineering Education for the 21st Century)
- 1981     University of Southern California, Los Angeles  
(theme: Education and Industry, a Joint Endeavor)
- 1982     Texas A&M University, College Station
- 1983     open
- 1984     Salt Lake City University and the University  
          of Utah, Salt Lake City
- 1985     Georgia Institute of Technology, Atlanta

It was announced at the meeting that proceedings of the 1980 conference will be published and will be available for purchase during the meeting. Proceedings were published for the first 20 years of the annual meetings, but a 65 year hiatus then ensued. Publication was resumed two years ago, but this year proceedings will be available at the meeting for the first time. It was also noted that members travelling to Amherst in June (23-26 are the dates of the meeting) should fly to Hartford Connecticut's Bradley Field, which is served by several major airlines. Commercial lodging is limited in the Amherst area but more than enough on-campus rooms are available.

## NEW DIVISION MEMBERS

Following is a list of new ASEE members who have chosen ELD as their primary division:

Bonnie L. Wilson	Franklin Institute of Boston
Thomas C. McFadden	Engineering Librarian, Rochester Institute of Technology
Beth M. Paskoff	Science Bibliographer Louisiana State University
Judith Pullan	Technical Librarian Burroughs Corporation (Plymouth, Michigan)
Susan B. Ardis	Head, Engineering Library University of Texas (Austin)

It is always a pleasure to welcome new Division members. We look forward to the opportunity of meeting all of them in Amherst.

## ELD OFFICERS FOR 1979-80

are as follows:

Jim Kyed, Chairman  
Karen Andrews, Program Chair  
and Chair Elect  
Kathy Jackson, Secretary-Treasurer  
and editor, ELD Newsletter

Nominating Committee:

Mary Jo Arnold, Chair  
George Lindauer, Hazel Wetts, Membership  
and Hospitality Chair  
Muriel Saul

Accreditation Guidelines Committee:

Maurita Holland, George Lindauer, Chair, Lucille Wert

Mary Jo Arnold, Editor, ELD Directory

PACIFIC NORTHWEST SECTION OF THE SOCIETY OF NAVAL ARCHITECTS AND  
MARINE ENGINEERS DONATES BOOKS TO THE UNIVERSITY OF WASHINGTON

The Pacific Northwest Section of the Society of Naval Architects and Marine Engineers has established the H. C. Hanson Memorial Student Fund to honor the memory of one of its charter members. Harold Hanson will long be remembered for the contributions he made over the years to the development of the profession and to the Society of Naval Architects and Marine Engineers.

On 1 June 1979 the Pacific Northwest Section of SNAME presented the University of Washington Engineering Library with a number of SNAME publications valued at over \$400. The gift was made from the funds of the H. C. Hanson Memorial Student Fund.

NOMINATING COMMITTEE REPORT

The Nominating Committee (Mary Jo Arnold, Chair; George Lindauer; and Hazel Wetts) has a slate to present to the ELD for the two vacant positions to be filled at the June 1980 business meeting. (The By-Laws call for notifying the ELD membership of the slate thirty days in advance of the election. Only one name per vacancy is required, although additional nominations can be made from the floor should anyone so desire.)

The vacancies, terms, and candidates are as follows:

Vice Chair for Programs 1980-1982, becomes Division  
Chair 1982-1983

Candidates: Zanier Lane Vivian, University of  
New Mexico

Director, 1980-1982

Candidates: Clemence C. Perslin, Howard University

BIOGRAPHICAL INFORMATION FOR CANDIDATES:

Zanier Vivian:

Zanier Vivian is an assistant professor at the University of New Mexico General Library, Albuquerque, and is responsible for Engineering reference, collection development, and library instruction. There is no separate Engineering library at UNM. She previously worked at the Georgia Tech Library and at the Lawrence Laboratory Livermore Library. A native of Georgia, she received her M.S.L.S. from the University of Illinois and B.A. from the University of Arizona.

She is a past-president of Special Libraries Association/Rio Grande Chapter (1975-76) and served as vice-president/annual conference chair for the New Mexico Library Association (1978-79). She served on the Advisory Council for the New Mexico State Library (1975-76) and on the Southwestern Library Association Projects Council. She presently chairs the Projects Development and Evaluation Committee of SLA's Science-Technology Division. At the University of New Mexico, she has been a member of the UNM Faculty Senate (1976-78) and the University's Research Policy Committee. She presently serves on the Undergraduate Academic Affairs Committee and is a member of the University Faculty's Committee of Five. She was president of the Albuquerque Opera Guild for Santa Fe Opera (1970-71) and has served on the Boards of Directors of both the New Mexico Symphony Orchestra and the New Mexico Opera Guild.

Zanier is married to Richard W. Vivian and is the mother of two sons: Tad Lane, a senior at New Mexico State University, Las Cruces, and Ben Lane, a freshman at UNM.

Clemence C. Perslin

Clemence C. Perslin is Associate Librarian of the Howard University Engineering Library. She has worked at Howard since getting her MLS at the University of Maryland. She received her B.A. from the College of Great Falls, Montana. This is Ms. Perslin's third year of membership in ASEE.

MORE NEWS NEEDED FOR THE NEXT ISSUE

Please share with the rest of us. Let your fellow ELD members know what is happening that is new, different, or just

plain nice. If you have tried out new programs, staff training techniques, bought or been given nifty reference tools or new equipment, pass on this good information.

THE DEADLINE FOR THE NEXT ISSUE IS MAY 12. We'll accept handwritten notes, or even news via telephone. Send it to:

Ms. Kathy Jackson  
Reference Division  
Texas A&M University Library  
College Station, Texas 77843

Telephone: (713) 845-5741

A special thanks to all of those who contributed to this issue. Keep the good words coming.